

STATE OF TENNESSEE DEPARTMENT OF HEALTH **ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL Lab Services - Jackson Regional Lab Jackson, TN 38301 731-426-0686

TDH: Lab Services KRL Lab Services - Knoxville Regional Lab Knoxville, TN 37920 865-549-5201

TDH: Lab Services NCL Lab Services - Nashville Central Lab Nashville, TN 37243 615-262-6300

Sent To:

Greg Denton

TDEC-WPC

6th Floor, L & C Tower Annex

401 Church Street

Nashville, TN 37243-1534

Michael Atchley TDEC-WPC

Knoxville FO

3711 Middlebrook Pike

Knoxville, TN 37921

Lab ID: K00002410

Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code:

327.34-20

This is to certify that the following results were determined using good laboratory pratices and in accordance with federal or state approved methodologies.

Analytical Supervisor

K00002410001 TVA-Ash Spill

Project Name: Sample Description:

Trip Blank Sampler Project Name: TVA ash spill

Project Site No.:

Station No.:

Trip Blank

Date/Time Collected:

05/28/2009

Sampler's Name:

Geoff Klein

08:50

County:

ROANE - 73

Sample Matrix: EFO:

Water

Sampling Agency:

Knoxville

Billing Code: Send Report To: Agency Invoiced: **TDEC-WPC** 327.34-20 TDEC-WPC

TDEC-WPC

Priority Date:

Date/Time Received: Received By:

05/28/2009 14:31

Ken Hitchman

Field Determinations

:Hq

Chlorine, residual: Conductivity: Temperature:

Dissolved Oxygen:

Other: Flow:

CFS

TEST: Alkalinity, Total	METHOD: EPA 310.2					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	U	mg/L	3.8	10	M Chen	6/2/2009

TEST: Hardness, Calcium	METHOD: SM 3500-Ca D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	U	mg/L	0.7	1	S Burchfield	5/29/2009

TEST: Residue, Suspended METHOD: SM 2540D						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	5/29/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002410002

Project Name:

TVA-Ash Spill

Sample Description:

Sampler Project Name: TVA ash spill

Emory River mile 12.1

Project Site No.:

Station No.:

EMORY012.1RO

Date/Time Collected: Sampler's Name:

05/28/2009 09:45

Geoff Klein

County:

ROANE - 73

Sample Matrix:

Water

EFO:

Knoxville

Sampling Agency: **Billing Code:**

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced:

TDEC-WPC **TDEC-WPC**

Priority Date:

Date/Time Received:

05/28/2009 14:31

Received By:

Ken Hitchman

Field Determinations :Ha 7.67

Chlorine, residual:

88

uMHO

pH Units

Conductivity: Temperature:

21.06

Dissolved Oxygen: 8.17

mg/L

Other:

Flow:

CFS

TEST: Alkalinity, Total	ME					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	23	mg/L	3.8	10	M Chen	6/2/2009

TEST: Hardness, Calcium	ME					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	23	mg/L	0.7	1	S Burchfield	5/29/2009

TEST: Residue, Settleable	METHOD: SM 2540F					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/29/2009

TEST: Residue, Suspended	METHOD: SM 2540D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	5/29/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002410003

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 2.1

Sampler Project Name: TVA ash spill

TVA seh en:

Project Site No.:

2

Station No.:

Date/Time Collected:

05/28/2009 10:48

Sampler's Name: County:

Geoff Klein ROANE - 73

Sample Matrix:

Water

EFO:

Knoxville

Sampling Agency: Billing Code:

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced: TDEC-WPC

Priority Date:

Date/Time Received:

05/28/2009 14:31

Received By:

Ken Hitchman

Field Determinations

pH:

7,42

pH Units

Chlorine, residual:

Conductivity:

111 22.84 uMHO

Temperature:

22.04

Dissolved Oxygen: 8.28

mg/L

Other:

Flow:

CFS

TEST: Alkalinity, Total	ME	ΓHOD: EPA 31				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	35	mg/L	3.8	. 10	M Chen	6/2/2009

TEST: Hardness, Calcium	ME	THOD: SM 350				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	32	mg/L	0.7	1	S Burchfield	5/29/2009

TEST: Residue, Settleable	ME					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	0.1	ml/L	0.10	0.10	P Leathers	5/29/2009

TEST: Residue, Suspended	METHOD: SM 2540D					
ANALYTE	RESULT	UNITS	MDL.	MQL	ANALYZED BY:	DATE
Total Suspended Solids	59	mg/L	10	10	A Peeples	5/29/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002410004

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 1.9 at underwater weir

78

Sampler Project Name: TVA ash spill

Project Site No.:

2B

Station No.:

EMORY001.9RO

Date/Time Collected: Sampler's Name:

05/28/2009 10:58

County:

Geoff Klein

Sample Matrix:

ROANE - 73

EFO:

Water

Sampling Agency:

Knoxville

Billing Code:

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced: TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

TEST: Alkalinity, Total

05/28/2009 14:31

Received By:

ANALYTE Total Alkalinity Ken Hitchman

 MET	HOD: EPA 310).2			
RESULT	LINITS	MDI	MQI	ANALYZED BY:	DATE

3.8

10

Field Determinations

Dissolved Oxygen: 8.93

Chlorine, residual:

Conductivity:

Temperature:

7.44

103

22.50

M Chen

pH Units

uMHO

mg/L

CFS

6/2/2009

:Ha

Other:

Flow:

TEST: Hardness, Calcium ANALYTE	ME	THOD: SM 350			***************************************	
	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	66	ma/l	0.7	1	S Burchfield	5/29/2009

mg/L

TEST: Residue, Settleable METHOD: SM 2540F						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/29/2009

TEST: Residue, Suspended	METHOD: SM 2540D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	17	mg/L	10	10	A Peeples	5/29/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002410005

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 1.7

Sampler Project Name: TVA ash spill

Project Site No.:

Station No.:

EMORY001.7RO

Date/Time Collected:

05/28/2009 11:08

Sampler's Name:

County:

Geoff Klein

Sample Matrix:

ROANE - 73

EFO:

Water

Sampling Agency:

Knoxville

Billing Code:

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced: TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

05/28/2009 14:31

Received By:

Ken Hitchman

Field Determinations

pH: 7.97

Chlorine, residual:

173

pH Units **uMHO**

Conductivity:

Temperature:

21.80

mg/L

Dissolved Oxygen: 10.43 Other:

Flow:

CFS

TEST: Alkalinity, Total	METHOD: EPA 310.2					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	94	mg/L	3.8	10	M Chen	6/2/2009

TEST: Hardness, Calcium	ME					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	78	mg/L	0.7	1	S Burchfield	5/29/2009

TEST: Residue, Settleable	METHOD: SM 2540F					***************************************
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/29/2009

TEST: Residue, Suspended	MET					
ANALYTE	RESULT	UNITS	MDL.	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	5/29/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002410006

Project Name:

TVA-Ash Spill

Sample Description:

Sampler Project Name: TVA ash spill

Emory River mile 0.1

Project Site No.:

Station No.:

EMORY000.1RO

Date/Time Collected: Sampler's Name:

05/28/2009 11:16

County:

Geoff Klein **ROANE - 73**

Sample Matrix:

Water

EFO:

Knoxville

Sampling Agency: **Billing Code:**

TDEC-WPC

Send Report To:

327.34-20 TDEC-WPC

Agency Invoiced:

TDEC-WPC

Priority Date:

Date/Time Received:

05/28/2009 14:31

Received By:

Ken Hitchman

Field Determinations

pH:

8.46

pH Units

uMHO

mg/L

Chlorine, residual:

Conductivity: Temperature: 209 22.30

Dissolved Oxygen: 11.63 Other:

Flow:

CFS

TEST: Alkalinity, Total	WE	THOD: EPA 31			***************************************	
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	100	mg/L	3.8	10	M Chen	6/2/2009

TEST: Hardness, Calcium	ME:	THOD: SM 350	• • • • • • • • • • • • • • • • • • • •			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	84	mg/L	0.7	. 1	S Burchfield	5/29/2009

TEST: Residue, Settleable	WE.	METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/29/2009

TEST: Residue, Suspended	ME	THOD: SM 254				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	5/29/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002410007

Project Name:

TVA-Ash Spill

Sample Description:

Clinch River mile 2.3

Sampler Project Name: TVA ash spill

Project Site No.:

Station No.:

CLINC002.3RO

Date/Time Collected:

05/28/2009 11:33

Sampler's Name:

Geoff Klein

County: Sample Matrix: **ROANE - 73**

EFO:

Water

Sampling Agency:

Knoxville

Billing Code:

TDEC-WPC 327.34-20

Send Report To:

TDEC-WPC

Agency Invoiced:

TDEC-WPC

Priority Date:

Date/Time Received:

05/28/2009 14:31

Received By:

Ken Hitchman

Field Determinations

pH:

Temperature:

80.8

pH Units

uMHO

Chlorine, residual:

Conductivity:

Dissolved Oxygen: 10.52

202 21.88

Other:

Flow:

CFS

mg/L

TEST: Alkalinity, Total	ME.					
ANALYTE	RESULT UNITS MDL		MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	76	mg/L	3.8	10	M Chen	6/2/2009

TEST: Hardness, Calcium	ME:	METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	67	mg/L	0.7	1	S Burchfield	5/29/2009

TEST: Residue, Settleable	METHOD: SM 2540F					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/29/2009

TEST: Residue, Suspended	METHOD: SM 2540D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	5/29/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002410008

Project Name:

TVA-Ash Spill

Sample Description:

Clinch River TVA discharge point

Sampler Project Name: TVA ash spill

Project Site No.:

5A

Station No.:

KingAshOutF2

Date/Time Collected:

05/28/2009 11:41

Sampler's Name:

Geoff Klein

County:

ROANE - 73

Sample Matrix:

Water

EFO:

Sampling Agency: **Billing Code:**

Knoxville TDEC-WPC

Send Report To:

327.34-20

Agency Invoiced:

TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

05/28/2009 14:31

Received By:

Ken Hitchman

Field Determinations 7.81

pH:

Chlorine, residual:

201

uMHO

pH Units

Conductivity: Temperature:

21.82

Dissolved Oxygen: 9.78

mg/L

Other:

Flow: **CFS**

TEST: Alkalinity, Total	METHOD: EPA 310.2					
ANALYTE	RESULT	UNITS	MDL	MQL ANALY	ANALYZED BY:	DATE
Total Alkalinity	72	mg/L	3.8	10	M Chen	6/2/2009

TEST: Hardness, Calcium	ardness, Calcium METHOD: SM 3500-Ca D						
ANALYTE	RESULT	UNITS MDL		MQL	ANALYZED BY:	DATE	
Calcium hardness	64	mg/L	0.7	1	S Burchfield	5/29/2009	

TEST: Residue, Settleable	METHOD: SM 2540F					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/29/2009

TEST: Residue, Suspended	Residue, Suspended METHOD: SM 2540D						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Total Suspended Solids	14	mg/L	10	10	A Peeples	5/29/2009	

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

Sample Description:

K00002410009

Project Name:

TVA-Ash Spill

pH: Clinch River mile 4.5 near Sugar Grove Valley F Chlorine, residual:

Field Determinations

Dissolved Oxygen: 11.70

Conductivity:

Temperature:

Other:

Flow:

8.34

226

20.86

pH Units

uMHO

mg/L

CFS

Sampler Project Name: TVA ash spill

Project Site No.:

6

Station No.:

Date/Time Collected:

CLINC004.5RO 05/28/2009 11:52

Sampler's Name:

Geoff Klein

County:

ROANE - 73

Sample Matrix:

Water

EFO:

Knoxville

Sampling Agency:

TDEC-WPC

Billing Code: Send Report To: 327.34-20

Agency Invoiced:

TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

05/28/2009 14:31

Received By:

Ken Hitchman

TEST: Alkalinity, Total	METHOD: EPA 310.2					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	100	mg/L	3.8	10	M Chen	6/2/2009

TEST: Hardness, Calcium	METHOD: SM 3500-Ca D						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Calcium hardness	88	mg/L	0.7	1	S Burchfield	5/29/2009	

TEST: Residue, Settleable METHOD: SM 2540F						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/29/2009

TEST: Residue, Suspended METHOD: SM 2540D						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peeples	5/29/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit



STATE OF TENNESSEE **DEPARTMENT OF HEALTH ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL Lab Services - Jackson Regional Lab Jackson, TN 38301 731-426-0686

TDH: Lab Services KRL Lab Services - Knoxville Regional Lab Knoxville, TN 37920 865-549-5201

TDH: Lab Services NCL Lab Services - Nashville Central Lab Nashville, TN 37243 615-262-6300

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6th Floor, L & C Tower Annex

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Nashville, TN 37243-1534

Michael Atchley TDEC-WPC

Knoxville FO

3711 Middlebrook Pike Knoxville, TN 37921

Lab ID: K00002410

Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code:

327.34-20

This is to certify that the following results were determined using good laboratory pratices and in accordance with federal or state approved methodologies.

Sample Description:

K00002410001

Project Name:

TVA-Ash Spill Trip Blank Sampler Project Name: TVA ash spill

Project Site No.:

Station No.:

Trip Blank

Date/Time Collected:

05/28/2009

Sampler's Name:

Geoff Klein

08:50

County: Sample Matrix: ROANE - 73

EFO:

Water Knoxville

Sampling Agency: **Billing Code:**

TDEC-WPC 327.34-20 TDEC-WPC

Send Report To: Agency Invoiced:

TDEC-WPC

Priority Date:

Date/Time Received:

05/28/2009 14:31

Received By:

Ken Hitchman

Field Determinations

pH:

Chlorine, residual: Conductivity: Temperature: **Dissolved Oxygen:**

Other:

Flow:

CFS

TEST: Digestion Metals	METHOD: EPA 200.2						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Digestion Metals	06/01/2009				S Ufegbu	6/1/2009	

TEST: ICP	METHOD: EPA 200.7						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Iron	U	μg/L	2.9	10	A Bass	6/29/2009	

TEST: ICP-MS	MET	METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	U	μg/L	6.4	10	A Wilson	6/29/2009
Antimony	U ·	μg/L	0.33	1	A Wilson	6/29/2009
Arsenic	U	μg/L	0.93	5	A Wilson	6/30/2009
Barium	U	µg/L	2.5	5	A Wilson	6/29/2009
Beryllium	U	μg/L	0.11	1	A Wilson	6/29/2009
Cadmium	U	μg/L	0.41	1	A Wilson	6/29/2009
Chromium	U	μg/L	2.0	5	A Wilson	6/29/2009
Cobalt	11	μg/L	0.04	1	A Wilson	6/29/2009
Copper	U	μg/L	0.38	1	Á Wilson	6/29/2009
Lead	U	μg/L	0.10	1	A Wilson	6/29/2009
Manganese	0.95J	μg/L	0.42	1	A Wilson	6/29/2009
Nickel	U	μg/L	0.25	1	A Wilson	6/29/2009
Selenium	U	μg/L	1.3	5	A Wilson	6/30/2009
Silver	U	μg/L	0.03	0.25	A Wilson	6/29/2009
Thallium	U	μg/L	0.03	1	A Wilson	6/29/2009
Vanadium	U	μg/L	3.4	5	A Wilson	6/29/2009
Zinc	3.6J	μg/L	1.9	5	A Wilson	6/29/2009

K00002410001

Project Name:

TVA-Ash Spill

Sample Description:

Trip Blank Sampler Project Name: TVA ash spill

Project Site No.:

Station No.:

Trip Blank

Date/Time Collected:

Sampler's Name:

05/28/2009 Geoff Klein

08:50

County:

ROANE - 73

Sample Matrix: EFO:

Water

Sampling Agency:

Knoxville

Billing Code: Send Report To: TDEC-WPC 327.34-20 TDEC-WPC

Agency Invoiced:

TDEC-WPC

Priority Date:

Date/Time Received:

05/28/2009 14:31

Received By:

Ken Hitchman

			,			
TEST: Mercury	METHOD: EPA 245.1					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE

μg/L

0.03J

Field Determinations

Chlorine, residual:

Dissolved Oxygen:

CFS

6/2/2009

Conductivity:

Temperature:

:Hq

Other:

Flow:

0.029

0.2

A Bass

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Mercury

K00002410002

Project Name:

TVA-Ash Spill

Sample Description:

Station No.:

Emory River mile 12.1

Sampler Project Name: TVA ash spill

Project Site No.:

EMORY012.1RO

Date/Time Collected:

05/28/2009 09:45

Sampler's Name: County:

Geoff Klein

Sample Matrix:

ROANE - 73 Water

EFO: Sampling Agency:

Knoxville TDEC-WPC

Billing Code: Send Report To: 327.34-20 TDEC-WPC TDEC-WPC

Agency Invoiced: **Priority Date:**

Date/Time Received:

05/28/2009 14:31

Received By:

Ken Hitchman

Field Determinations

:Ha

7.67

pH Units

Chlorine, residual:

Conductivity:

88

uMHO

Temperature:

21.06

Dissolved Oxygen: 8.17

mg/L

Other:

Flow:

CFS

TEST: Digestion Metals	METHOD: EPA 200.2						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Digestion Metals	06/01/2009	•	. '		S Ufegbu	6/1/2009	

TEST: ICP	METHOD: EPA 200.7						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Iron	160	μg/L	2.9	10	A Bass	6/29/2009	

TEST: ICP-MS	MET	THOD: EPA 20	0.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	76	μg/L	6.4	10	A Wilson	6/29/2009
Antimony	U	μg/L	0.33	1	A Wilson	6/29/2009
Arsenic	U	μg/L	0.93	5	A Wilson	6/30/2009
Barium	33	μg/L	2.5	5	A Wilson	6/29/2009
Beryllium	· U	μg/L	0.11	1	A Wilson	6/29/2009
Cadmium	U	μg/L	0.41	1	A Wilson	6/29/2009
Chromium	U	μg/L	2.0	5	A Wilson	6/29/2009
Cobalt	2.0	μg/L	0.04	1	A Wilson	6/29/2009
Copper	2.5	μg/L	0.38	1	A Wilson	6/29/2009
Lead	0.25J	μg/L	0.10	1	A Wilson	6/29/2009
Manganese	54	μg/L	0.42	1	A Wilson	6/29/2009
Nickel	1.3	μg/L	0.25	1	A Wilson	6/29/2009
Selenium	1.9J	μg/L	1.3	5	A Wilson	6/30/2009
Silver	U	μg/L	0.03	0.25	A Wilson	6/29/2009
Thallium	U	μg/L	0.03	1	A Wilson	6/29/2009
Vanadium	U	μg/L	3.4	5	A Wilson	6/29/2009
Zinc	3.7J	μg/L	1.9	5	A Wilson	6/29/2009

K00002410002

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 12.1

Sampler Project Name: TVA ash spill

Project Site No.:

Station No.:

EMORY012.1RO

Date/Time Collected:

09:45 05/28/2009

Sampler's Name: County:

Geoff Klein ROANE - 73

Sample Matrix:

Water

EFO: Sampling Agency: Knoxville

Billing Code: Send Report To: TDEC-WPC 327.34-20 TDEC-WPC

Agency Invoiced:

TDEC-WPC

Priority Date:

Date/Time Received:

05/28/2009 14:31

Received By:

TEST: Mercury

Ken Hitchman

METHOD: EPA 245.1

Field Determinations

Dissolved Oxygen: 8.17

Chlorine, residual:

Conductivity:

Temperature:

7.67

88

21.06

pH Units

uMHO

mg/L

CFS

pH:

Other:

Flow:

MDL **ANALYTE RESULT** UNITS MQL **ANALYZED BY:** DATE Mercury 0.12J μg/L 0.029 0.2 A Bass 6/2/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002410003

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 2.1

Sampler Project Name: TVA ash spill

Project Site No.:

Station No.:

EMORY002.1RO

Date/Time Collected:

05/28/2009 10:48

Sampler's Name: County:

Geoff Klein

Sample Matrix:

ROANE - 73 Water

EFO: Sampling Agency: Knoxville TDEC-WPC

Billing Code: Send Report To: 327.34-20 TDEC-WPC

Agency Invoiced:

TDEC-WPC

Priority Date:

Date/Time Received:

05/28/2009 14:31

Received By:

Ken Hitchman

pH: 7.42

Chlorine, residual:

Conductivity: 111

Temperature: 22.84

Dissolved Oxygen: 8.28 mg/L

Other:

Flow: **CFS**

pH Units

uMHO

TEST: Digestion Metals	METHOD: EPA 200.2						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Digestion Metals	06/01/2009				S Ufegbu	6/1/2009	

TEST: ICP	METHOD: EPA 200.7							
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE		
Iron	1600	μg/L	2.9	10	A Bass	6/29/2009		

TEST: ICP-MS	ME.	METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	3100	μg/L	6.4	10	A Wilson	6/29/2009
Antimony	0.80J	μg/L	0.33	1	A Wilson	6/29/2009
Arsenic	15	μg/L	0.93	5	A Wilson	6/30/2009
Barium	110	μg/L	2.5	5	A Wilson	6/29/2009
Beryllium	0.52J	μg/L	0.11	1	A Wilson	6/29/2009
Cadmium	U	μg/L	0.41	1	A Wilson	6/29/2009
Chromium	2.9J	μg/L	2.0	5	A Wilson	6/29/2009
Cobalt	5.5	μg/L	0.04	1	A Wilson	6/29/2009
Copper	7.9	μg/L	0.38	1	A Wilson	6/29/2009
Lead	4.8	μg/L	0.10	1	A Wilson	6/29/2009
Manganese	140	μg/L	0.42	1	A Wilson	6/29/2009
Nickel	5.1	μg/L	0.25	1	A Wilson	6/29/2009
Selenium	6.6	μg/L	1.3	5	A Wilson	6/29/2009
Silver	0.036J	μg/L	0.03	0.25	A Wilson	6/29/2009
Thallium	0.33J	μg/L	0.03	1	A Wilson	6/29/2009
Vanadium	16	μg/L	3.4	5	A Wilson	6/29/2009
Zinc	9.7	μg/L	1.9	5	A Wilson	6/29/2009

K00002410003

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 2.1

Sampler Project Name: TVA ash spill

Project Site No.:

Station No.:

EMORY002.1RO

Date/Time Collected:

05/28/2009 10:48

Sampler's Name: County:

Geoff Klein

Sample Matrix:

ROANE - 73 Water

EFO:

Knoxville

Sampling Agency: Billing Code:

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced:

TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

05/28/2009 14:31

Received By:

Ken Hitchman

Field Determinations

:Hq

7.42

pH Units

Chlorine, residual:

Conductivity:

111

uMHO

Temperature:

22.84

Dissolved Oxygen: 8.28

mg/L

Other:

Flow:

CFS

TEST: Mercury	METHOD: EPA 245.1					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.03J	μg/L	0.029	0.2	A Bass	6/2/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002410004

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 1.9 at underwater weir

06/01/2009

Sampler Project Name: TVA ash spill

Project Site No.:

2B

Station No.:

Date/Time Collected:

EMORY001.9RO 10:58

Sampler's Name:

05/28/2009

County:

Geoff Klein

Sample Matrix:

ROANE - 73

EFO:

Water

Sampling Agency:

Knoxville TDEC-WPC

Billing Code: Send Report To:

327.34-20 TDEC-WPC TDEC-WPC

Agency Invoiced: **Priority Date:**

Date/Time Received:

Received By:

Digestion Metals

ANALYTE

TEST: Digestion Metals

Ken Hitchman

05/28/2009 14:31

MET						
 RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	_

Field Determinations

Dissolved Oxygen: 8.93

Chlorine, residual: Conductivity:

Temperature:

:Hq

Other:

Flow:

7.44

103

22.50

S Ufegbu

pH Units

uMHO

mg/L

CFS

6/1/2009

TEST: ICP	ME.	THOD: EPA 20	0.7			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	350	ua/L	2.9	10	A Bass	6/29/2009

TEST: ICP-MS	0.8					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	530	μg/L	6.4	10	A Wilson	6/29/2009
Antimony	0.62J	μg/L	0.33	1	A Wilson	6/29/2009
Arsenic	2.1J	μg/L	0.93	5	A Wilson	6/30/2009
Barium	42	μg/L	2.5	5	A Wilson	6/29/2009
Beryllium	U	μg/L	0.11	1	A Wilson	6/29/2009
Cadmium	U	· μg/L	0.41	1	A Wilson	6/29/2009
Chromium	U	μg/L	2.0	5	A Wilson	6/29/2009
Cobalt	1.8	μg/L	0.04	1	A Wilson	6/29/2009
Copper	3.0	μg/L	0.38	1	A Wilson	6/29/2009
Lead	0.83J	μg/L	0.10	1	A Wilson	6/29/2009
Manganese	56	μg/L	0.42	1	A Wilson	6/29/2009
Nickel	1.9	μg/L	0.25	1	A Wilson	6/29/2009
Selenium	U	μg/L	1.3	5	A Wilson	6/30/2009
Silver	U	μg/L	0.03	0.25	A Wilson	6/29/2009
Thallium	0.080J	μg/L	0.03	1 ·	A Wilson	6/29/2009
Vanadium	U	μg/L	3.4	5	A Wilson	6/29/2009
Zinc	5.4	μg/L	1.9	5	A Wilson	6/29/2009

K00002410004

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 1.9 at underwater weir

Sampler Project Name: TVA ash spill

Project Site No.:

2B

Station No.:

Date/Time Collected:

EMORY001.9RO 10:58

Sampler's Name:

05/28/2009 Geoff Klein

County:

ROANE - 73

Sample Matrix: EFO:

Water

Sampling Agency:

Knoxville TDEC-WPC 327.34-20

Billing Code: Send Report To: Agency Invoiced:

TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

05/28/2009 14:31

Received By:

TEST: Mercury

Ken Hitchman

METH	OD:	EPA	245.1

Field Determinations

Dissolved Oxygen: 8.93

Chlorine, residual:

Conductivity:

Temperature:

pH:

Other:

Flow:

7.44

103

22.50

pH Units

uMHO

mg/L

CFS

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.08J	µg/L	0.029	0.2	A Bass	6/2/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002410005

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 1.7

Sampler Project Name: TVA ash spill

Project Site No.:

Station No.:

EMORY001.7RO

Date/Time Collected: Sampler's Name:

05/28/2009 11:08

County:

Geoff Klein

Sample Matrix:

ROANE - 73 Water

EFO: Sampling Agency: Knoxville

Billing Code:

TDEC-WPC 327.34-20 TDEC-WPC

Send Report To: Agency Invoiced:

TDEC-WPC

Priority Date:

Date/Time Received:

05/28/2009 14:31

Received By:

Ken Hitchman

Field Determinations

pH:

7.97

pH Units

Chlorine, residual:

Conductivity:

173

uMHO

Temperature: **Dissolved Oxygen:** 10.43

21.80

mg/L

Other:

Flow:

CFS

TEST: Digestion Metals	MET	HOD: EPA 20	0.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	06/01/2009				S Ufegbu	6/1/2009

TEST: ICP	MET	THOD: EPA 20	0.7			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	200	μg/L	2.9	10	A Bass	6/29/2009

TEST: ICP-MS	ME	THOD: EPA 20	0.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	280	μg/L	6.4	10	A Wilson	6/29/2009
Antimony	U	μg/L	0.33	1	A Wilson	6/29/2009
Arsenic	2.6J	μg/L	0.93	5	A Wilson	6/30/2009
Barium	42	μg/L	2.5	5	A Wilson	6/29/2009
Beryllium	U	μg/L	0.11	1	A Wilson	6/29/2009
Cadmium	· U	μg/L	0.41	1	A Wilson	6/29/2009
Chromium	U	μg/L	2.0	5	A Wilson	6/29/2009
Cobalt	0.45J	μg/L	0.04	1	A Wilson	6/29/2009
Copper	3.3	μg/L	0.38	1	A Wilson	6/29/2009
Lead	0.47J	μg/L	0.10	1	A Wilson	6/29/2009
Manganese	44	μg/L	0.42	1	A Wilson	6/29/2009
Nickel	1.7	μg/L	0.25	1	A Wilson	6/29/2009
Selenium	2.0J	μg/L	1.3	5	A Wilson	6/30/2009
Silver	U	μg/L	0.03	0.25	A Wilson	6/29/2009
Thallium	0.061J	μg/L	0.03	1	A Wilson	6/29/2009
Vanadium	3.6J	μg/L	3.4	5	A Wilson	6/29/2009
Zinc	3.6J	μg/L	1.9	5	A Wilson	6/29/2009

K00002410005

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 1.7

Sampler Project Name: TVA ash spill

Project Site No.:

Station No.:

EMORY001.7RO

Date/Time Collected:

11:08 05/28/2009

Sampler's Name: County:

Geoff Klein

Sample Matrix:

ROANE - 73

EFO:

Water

Sampling Agency: **Billing Code:**

Knoxville TDEC-WPC

Send Report To:

327.34-20 TDEC-WPC

Agency Invoiced: **Priority Date:**

TDEC-WPC

Date/Time Received:

05/28/2009 14:31

Received By:

TEST: Mercury

Ken Hitchman

MET	HOD: EPA 24	5.1	
		1401	1101

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.09J	μg/L	0.029	0.2	A Bass	6/2/2009

Field Determinations

Dissolved Oxygen: 10.43

Chlorine, residual:

Conductivity:

Temperature:

:Hq

Other:

Flow:

7.97

173

21.80

pH Units

uMHO

mg/L

CFS

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002410006

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 0.1

Sampler Project Name: TVA ash spill

Project Site No.:

Station No.:

EMORY000.1RO

Date/Time Collected: Sampler's Name:

05/28/2009 11:16 Geoff Klein

County:

Sample Matrix:

ROANE - 73

EFO:

Water Knoxville

Sampling Agency: Billing Code:

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced: TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

05/28/2009 14:31

Received By:

Ken Hitchman

Field Determinations

Dissolved Oxygen: 11.63

pH:

8.46

pH Units

Chlorine, residual:

Conductivity:

209

uMHO

Temperature:

22.30

mg/L

Other:

Flow:

CFS

TEST: Digestion Metals	MET	METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	06/01/2009				S Ufegbu	6/1/2009

TEST: ICP	ME	THOD: EPA 20	0.7			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	230	μg/L	2.9	10	A Bass	6/29/2009

TEST: ICP-MS	ME	ΓHOD: EPA 20	0.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	350	μg/L	6.4	10	A Wilson	6/29/2009
Antimony	U	μg/L	0.33	1	A Wilson	6/29/2009
Arsenic	1.3J	μg/L	0.93	5	A Wilson	6/30/2009
Barium	37	μg/L	2.5	5	A Wilson	6/29/2009
Beryllium	U	μg/L	0.11	1	A Wilson	6/29/2009
Cadmium	U	μg/L	0.41	1	A Wilson	6/29/2009
Chromium	U	μg/L	2.0	5	A Wilson	6/29/2009
Cobalt	0.47J	μg/L	0.04	1	A Wilson	6/29/2009
Copper	2.8	μg/L	0.38	1	A Wilson	6/29/2009
Lead	0.41J	μg/L	0.10	1	A Wilson	6/29/2009
Manganese	39	μg/L	0.42	1	A Wilson	6/29/2009
Nickel	1.6	μg/L	0.25	1	A Wilson	6/29/2009
Selenium	1.7J	μg/L	1.3	5	A Wilson	6/30/2009
Silver	U	μg/L	0.03	0.25	A Wilson	6/29/2009
Thallium	0.046J	μg/L	0.03	1	A Wilson	6/29/2009
Vanadium	5.5	μg/L	3.4	5	A Wilson	6/29/2009
Zinc	3.8J	μg/L	1.9	5	A Wilson	6/29/2009

K00002410006

Project Name:

TVA-Ash Spill

Sample Description:

Emory River mile 0.1

Sampler Project Name: TVA ash spill

Project Site No.:

Station No.:

EMORY000.1RO

Date/Time Collected:

05/28/2009 11:16

Sampler's Name:

Geoff Klein

County: Sample Matrix: ROANE - 73

EFO:

Water

Sampling Agency:

Knoxville TDEC-WPC

Billing Code: Send Report To: Agency Invoiced: 327.34-20 TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

05/28/2009

14:31

Received By:

Ken Hitchman

TEST: Mercury METHOD: EPA 245.1

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.10J	μg/L	0.029	0.2	A Bass	6/2/2009

Field Determinations

Dissolved Oxygen: 11.63

Chlorine, residual:

Conductivity:

Temperature:

8.46

209

22.30

pH Units

uMHO

mg/L

CFS

pH:

Other:

Flow:

J - Estimated value between MDL and MQL

MDL - Method Detection Limit MQL - Method Quantitation Limit

K00002410007

Project Name:

TVA-Ash Spill

Sample Description: Sampler Project Name: TVA ash spill

Clinch River mile 2.3

Project Site No.:

Station No.:

CLINC002.3RO

Date/Time Collected: Sampler's Name:

05/28/2009 11:33 Geoff Klein

County: Sample Matrix: ROANE - 73

EFO:

Water

Sampling Agency: **Billing Code:**

Knoxville TDEC-WPC 327.34-20

Send Report To: Agency Invoiced:

TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

05/28/2009 14:31

Received By:

Ken Hitchman

Field Determinations

pH:

8.08

pH Units

uMHO

Chlorine, residual:

Conductivity: Temperature: 202

21.88 **Dissolved Oxygen: 10.52**

mg/L

Other:

Flow:

CFS

TEST: Digestion Metals	METHOD: EPA 200.2					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	06/01/2009				S Ufegbu	6/1/2009

TEST: ICP	METHOD: EPA 200.7						
ANALYTE	ŖESUL	T UNITS	MDL	MQL	ANALYZED BY:	DATE	
Iron	140	μg/L	2.9	10	A Bass	6/29/2009	

TEST: ICP-MS	ME ⁻					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	280	μg/L	6.4	10	A Wilson	6/29/2009
Antimony	U ·	μg/L	0.33	1	A Wilson	6/29/2009
Arsenic	3.0J	μg/L	0.93	5	A Wilson	7/1/2009
Barium	40	μg/L	2.5	5	A Wilson	6/29/2009
Beryllium	U	μg/L	0.11	1	A Wilson	6/29/2009
Cadmium	U	μg/L	0.41	1	A Wilson	6/29/2009
Chromium	U	μg/L	2.0	5	A Wilson	6/29/2009
Cobalt	0.50J	μg/L	0.04	1	A Wilson	6/29/2009
Copper	4.2	μg/L	0.38	1	A Wilson	6/29/2009
Lead	0.48J	μg/L	0.10	1	A Wilson	6/29/2009
Manganese	35	μg/L	0.42	1	A Wilson	6/29/2009
Nickel	1.5	μg/L	0.25	1	A Wilson	6/29/2009
Selenium	· U	μg/L	1.3	5	A Wilson	7/1/2009
Silver	U	μg/L	0.03	0.25	A Wilson	6/29/2009
Thallium	0.054J	μg/L	0.03	1	A Wilson	6/29/2009
Vanadium	3.9J	μg/L	3.4	5	A Wilson	6/29/2009
Zinc	4.9J	μg/L	1.9	5	A Wilson	6/29/2009

K00002410007

Project Name:

TVA-Ash Spill

Sample Description:

Clinch River mile 2.3

Sampler Project Name: TVA ash spill

T\/A coh onill

Project Site No.:

e. IVA

Station No.:

CLINO

Date/Time Collected:

CLINC002.3RO 05/28/2009 11:33

Sampler's Name:

Geoff Klein

County:

ROANE - 73

Sample Matrix:

Water

EFO: Sampling Agency:

Knoxville

Billing Code:

TDEC-WPC 327.34-20 TDEC-WPC

Send Report To: Agency Invoiced:

TDEC-WPC

Priority Date:

Date/Time Received:

05/28/2009 14:31

Received By:

TEST: Mercury

Ken Hitchman

METHOD: EPA	245.1

Field Determinations

Dissolved Oxygen: 10.52

Chlorine, residual:

Conductivity:

Temperature:

pH:

Other:

Flow:

8.08

202

21.88

pH Units

uMHO

mg/L

CFS

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.08J	μg/L	0.029	0.2	A Bass	6/2/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002410008

Project Name:

TVA-Ash Spill

Sample Description:

Clinch River TVA Discharge Point

Sampler Project Name: TVA ash spill

Project Site No.:

5A

Station No.:

KingAshOutF2

Date/Time Collected:

05/28/2009 11:41

Sampler's Name: County:

Geoff Klein

Sample Matrix:

ROANE - 73

EFO:

Water

Sampling Agency:

Knoxville TDEC-WPC 327.34-20

Billing Code: Send Report To: **Agency Invoiced:**

TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

TEST: Digestion Metals

05/28/2009 14:31

Received By:

Digestion Metals

ANALYTE

Iron

Ken Hitchman

RESULT

06/01/2009

300

	METHOD: EPA 200.2

MDL

2.9

MQL

10

Field Determinations

Dissolved Oxygen: 9.78

Chlorine, residual:

Conductivity:

Temperature:

pH:

Other:

Flow:

7.81

201

21.82

ANALYZED BY:

S Ufegbu

A Bass

pH Units

uMHO

mg/L

CFS

DATE

6/1/2009

6/29/2009

TEST: ICP METHOD: EPA 200.7 MDL. **ANALYTE** MQL ANALYZED BY: DATE RESULT UNITS

μg/L

UNITS

TEST: ICP-MS	ME	THOD: EPA 20	0.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	550	μg/L	6.4	10	A Wilson	6/29/2009
Antimony	U	μg/L	0.33	1	A Wilson	6/29/2009
Arsenic	2.5J	μg/L	0.93	5	A Wilson	7/1/2009
Barium	52	μg/L	2.5	5	A Wilson	6/29/2009
Beryllium	U	μg/Ŀ	0.11	1	A Wilson	6/29/2009
Cadmium	U	μg/L	0.41	1	A Wilson	6/29/2009
Chromium	U	μg/L	2.0	5	A Wilson	6/29/2009
Cobalt	0.84J	μg/L	0.04	1	A Wilson	6/29/2009
Copper	5.2	μg/L	0.38	1	A Wilson	6/29/2009
Lead	0.87J	μg/L	0.10	1	A Wilson	6/29/2009
Manganese	51	μg/L	0.42	1	A Wilson	6/29/2009
Nickel	2.1	μg/L	0.25	1	A Wilson	6/29/2009
Selenium	U	μg/L	1.3	5	A Wilson `	7/1/2009
Silver	U	μg/L	0.03	0.25	A Wilson	6/29/2009
Thallium	0.090J	μg/L	0.03	1	A Wilson	6/29/2009
Vanadium	3.8J	μg/L	3.4	5	A Wilson	6/29/2009
Zinc	5.3	μg/L	1.9	5	A Wilson	6/29/2009

K00002410008

Project Name:

TVA-Ash Spill

Sample Description:

Clinch River TVA Discharge Point

Sampler Project Name: TVA ash spill

Project Site No.:

5A

Station No.:

KingAshOutF2

Date/Time Collected:

05/28/2009 11:41

Sampler's Name:

Geoff Klein

County:

ROANE - 73

Sample Matrix:

Water

EFO: **Sampling Agency:** Knoxville

Billing Code:

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced:

TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

05/28/2009 14:31

Received By:

TEST: Mercury

Ken Hitchman

MET	THO	D· F	PΔ	245 1

Field Determinations

Dissolved Oxygen: 9.78

Chlorine, residual:

Conductivity:

Temperature:

pH:

Other:

Flow:

7.81

201

21.82

pH Units

uMHO

mg/L

CFS

ANALYTE	RESULT	UNITS	MDL	MOL	ANALYZED BY:	DATE
Mercury	0.07J	μg/L	0.029	0.2	A Bass	6/2/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002410009

Project Name:

TVA-Ash Spill

Sample Description:

Clinch River mile 4.5 near Sugar Grove Valley R Chlorine, residual:

Field Determinations

Dissolved Oxygen: 11.70

Conductivity:

Temperature:

pH:

Other:

Flow:

8.34

226

20.86

pH Units

uMHO

mg/L

CFS

Project Site No.:

Sampler Project Name: TVA ash spill

Station No.:

CLINC004.5RO

Date/Time Collected:

05/28/2009 11:52

Sampler's Name: County:

Geoff Klein

Sample Matrix:

ROANE - 73

EFO:

Water Knoxville

Sampling Agency: **Billing Code:**

TDEC-WPC 327.34-20 TDEC-WPC

Send Report To: Agency Invoiced:

TDEC-WPC

Priority Date:

Date/Time Received:

05/28/2009 14:31

Received By:

Ken Hitchman

TEST: Digestion Metals	MET					
ANALYTE	RESULT	UNITS	MDL.	MQL	ANALYZED BY:	DATE
Digestion Metals	06/01/2009				S Ufegbu	6/1/2009

TEST: ICP	METHOD: EPA 200.7					
ANALYTE	RESULT	UNITS	MDL	MQL.	ANALYZED BY:	DATE
Iron	230	μg/L	2.9	10	A Bass	6/29/2009

TEST: ICP-MS	METHOD: EPA 200.8					,
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	320	μg/L	6.4	10	A Wilson	6/29/2009
Antimony	0.51J	μg/L	0.33	1	A Wilson	6/29/2009
Arsenic	1.9J	μg/L	0.93	5	A Wilson	7/1/2009
Barium	34	μg/L	2.5	5	A Wilson	6/29/2009
Beryllium	U	μg/L	0.11	1	A Wilson	6/29/2009
Cadmium	U	μg/L	0.41	1	A Wilson	6/29/2009
Chromium	U	μg/L	2.0	5	A Wilson	6/29/2009
Cobalt	1.1	μg/L	0.04	1	A Wilson	6/29/2009
Copper	1.6	μg/L	0.38	1	A Wilson	6/29/2009
Lead	0.50J	μg/L	0.10	1	A Wilson	6/29/2009
Manganese	35	μg/L	0.42	1	A Wilson	6/29/2009
Nickel	1.5	μg/L	0.25	1	A Wilson	6/29/2009
Selenium	U	μg/L	1.3	5	A Wilson	7/1/2009
Silver	U	μg/L	0.03	0.25	A Wilson	6/29/2009
Thallium	0.041J	μg/L	0.03	· 1	A Wilson	6/29/2009
Vanadium	U	μg/L	3.4	5	A Wilson	6/29/2009
Zinc	2.9J	μg/L	1.9	5	A Wilson	6/29/2009

K00002410009

Project Name:

TVA-Ash Spill

Sample Description:

pH: Clinch River mile 4.5 near Sugar Grove Valley R Chlorine, residual:

Sampler Project Name: TVA ash spill

Project Site No.:

Station No.:

CLINC004.5RO

11:52

Date/Time Collected:

05/28/2009 Geoff Klein

Sampler's Name: County:

Sample Matrix:

ROANE - 73

EFO:

Water

Sampling Agency: Billing Code:

Knoxville TDEC-WPC

Send Report To: Agency Invoiced: 327.34-20 TDEC-WPC TDEC-WPC

Priority Date:

Date/Time Received:

05/28/2009 14:31

Received By:

TEST: Mercury

Ken Hitchman

ME	THOD	: EPA	245.	1

Field Determinations

Dissolved Oxygen: 11.70

Conductivity:

Temperature:

Other:

Flow:

8.34

226

20.86

pH Units

uMHO

mg/L

CFS

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.09J	μg/L	0.029	0.2	A Bass	6/2/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit MQL - Method Quantitation Limit